

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicant has amended claims 1, 4, 5, 6, 10, 15, 16, 19, 20, and 21; claims 9, 17, 18, and 29 have been canceled; and claims 5, 19, and 20, which were previously withdrawn, have been reinstated. Accordingly, claims 1, 2, 4-7, 10-16, 19-21, and 23-28 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Allowable Subject Matter

The Applicant gratefully acknowledges the allowance of claims 4, 6, 7, 10-12 and the conditional allowance of claims 24-26. The Applicant has made minor amendments to allowed claim 4. The previously recited term “a loop filter” in the trimming circuit has been corrected to “a filter” because the filter in the trimming circuit is not the same as the loop filter in the phase-locked loop.

Allowed claim 6 has been amended to make the language clearer.

Since base claim 4 was allowed, withdrawn dependent claim 5 has been reinstated. The allowance of claim 5 is respectfully requested.

3.) Claim Rejections – 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 2, 9, 15-18, 21, 23 and 29 under 35 U.S.C. § 102(b) as being anticipated by Smith (US 4,743,867) as evidenced by Jopson (US 5,386,314) and Fredriksson (US 6,366,146). Claims 9, 17, 18, and 29 have been canceled. The Applicant has amended the remaining claims to better distinguish the claimed invention from Smith, Jopson, and Fredriksson. The Examiner's consideration of the amended claims is respectfully requested.

Claim 1 has been amended to add key features, which the Examiner has stated are different from Smith. On page 4 of the Office Action, in the last sentence of the first paragraph, the Examiner states, “Note that Smith does not continually measure the actual gain of the VCO and apply so [sic] sort of feedback loop to compensate for the gain at every instant in time”. On page 5, last sentence of the third paragraph, the

Examiner states, "Applicant also refers to calibration in claim 1 but the examiner does not see this term used in claim 1."

The Applicant has amended claim 1 to add the limitations, "wherein the trimming circuit forms a feedback control loop together with the phase-locked loop to automatically calibrate gain estimation and variation of the voltage controlled oscillator." These limitations were previously argued by the Applicant, but not expressly recited in claim 1. Basis for the amendments is found in the originally filed specification on page 6, lines 17-22 and FIGS. 5-8. Therefore, the withdrawal of the § 102 rejection and the allowance of amended claim 1 are respectfully requested.

Claim 2 depends from amended claim 1 and recites further limitations in combination with the novel elements of claim 1. Therefore, the allowance of claim 2 is respectfully requested.

Independent claim 15 has been amended in a manner similar to claim 1 to recite that the trimming circuit forms a feedback control loop together with the phase-locked loop, and the method includes:

- receiving an error signal generated by the phase frequency detector in the trimming circuit;
- filtering the received error signal to control a dynamic behavior of the trimming circuit; and
- controlling a gain of the high-pass modulation input using the trimming circuit and the error signal such that the high-pass modulation input and the low-pass modulation input together form an all-pass modulation input to the voltage controlled oscillator.

As admitted by the Examiner, Smith does not continually measure the actual gain of the VCO and apply a feedback loop to compensate for the gain at every instant in time. Therefore, the withdrawal of the § 102 rejection and the allowance of amended claim 15 are respectfully requested.

Claims 16, 21, and 23 depend from amended claim 15 and recite further limitations in combination with the novel elements of claim 15. Therefore, the allowance of claims 16, 21, and 23 is respectfully requested.

Given the apparent allowability of base claim 15, withdrawn dependent claims 19 and 20 have been reinstated. The allowance of claims 19 and 20 is respectfully requested.

4.) Claim Rejections – 35 U.S.C. § 103(a)

The Examiner rejected claims 13, 14, 27, and 28 under 35 U.S.C. § 103(a) as being unpatentable over Smith as evidenced by Jopson and Fredriksson. Claims 13 and 14 depend from amended claim 1 and recite further limitations in combination with the novel elements of claim 1. Therefore, the allowance of claims 13 and 14 is respectfully requested.

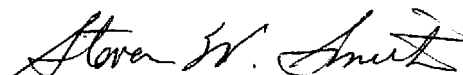
Claims 27 and 28 depend from amended claim 15 and recite further limitations in combination with the novel elements of claim 15. Therefore, the allowance of claims 27 and 28 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1, 2, 4-7, 10-16, 19-21, and 23-28.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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